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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,289	03/24/2004	Ulrich Bley	DP-314018	3911

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DELPHI TECHNOLOGIES, INC.  
M/C 480-410-202  
PO BOX 5052  
TROY, MI 48007

EXAMINER
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FELTON, AILEEN BAKER

ART UNIT	PAPER NUMBER
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1755

MAIL DATE	DELIVERY MODE
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08/08/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/807,289

Applicant(s)

BLEY ET AL.

Examiner

Aileen B. Felton

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 8-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Lewis (3,177,652).

Lewis discloses using mixtures of gaseous oxides such as nitrous oxide and nitric oxide with solid fuel in a device that generates gas (col. 5).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 8, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rink et al (5,941,562) in view of Lewis (3,177,652).

Rink discloses nitrous oxide combined with a solid fuel in a generating device (col. 4). The nitrous oxide can be mixed with argon (col. 7). The nitrous oxide is in fluid communication with a solid gas generant.

Lewis teaches that it is known to use mixtures of gaseous oxides such as nitrous oxide and nitric oxide with solid fuel in a device that generates gas (col. 5).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the mixture of oxides as taught by Lewis since Lewis suggests that it is known to use these mixtures in association with a solid fuel to generate gas.

5. Claims 3-5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rink et al (5,941,562) in view of Lewis (3,177,652) as applied to claims 1, 2, 8, and 11 above, and further in view of Tigrett (3,321,342).

Rink fails to disclose the use of a scent material.

Tigrett teaches that it is known to add fragrance to an explosive formulation (col. 4, lines 30-38).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a fragrance as taught by Tigrett since it would cause the primer to also have a pleasing smell upon ignition. It would also be obvious to use any type of fragrance such as vanillin.

6. Claims 9, 10, 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rink et al (5,941,562) in view of Lewis (3,177,652) as applied to claims 1, 2, 8, and 11 above, and further in view of Lundstrom (5,962,808).

Rink fails to disclose the claimed gas generant.

Lundstrom teaches a gas generant that comprises nitroguanidine, ferrocene, and aluminum (col. 4 and 5).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the gas generant as taught by Lundstrom with the device disclosed by Rink since Rink suggests that gas generant compositions may be used and since Lundstrom teaches that this composition is known for use in gas generators.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rink et al (5,941,562) in view of Lewis (3,177,652) as applied to claims 1, 2, 8, and 11 above, and further in view of Barbero (3,529,551).

Barbero teaches that it is known to use plastic spheres to create pores in a solid propellant (col. 5).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the teaching of Barbero with the gas generant of Rink since Barbero suggests that it is known to increase porosity with plastic spheres to improve the performance of a propellant.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen B. Felton whose telephone number is 571.272.6875. The examiner can normally be reached on Monday-Friday 6:30-4:00, except alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571.272.1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1755

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
AILEEN FELTON  
PRIMARY EXAMINER